IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (*Previously Presented*) A phase-change optical recording medium, comprising:

a transparent substrate;

a first interference film formed on the transparent substrate;

a lower interface film formed on the first interference film;

a phase-change optical recording film that permits reversible phase change between a crystalline phase and an amorphous phase upon irradiation with light formed on the lower interface film;

an upper interface film formed on the phase-change optical recording film;

a second interference film formed on the upper interface film; and

a reflection film formed on the second interference film,

wherein the lower and upper interface films are formed of hafnium oxide, or a mixture of hafnium oxide and at least one oxide selected from the group consisting of cerium oxide, titanium oxide and zirconium oxide.

2.-4. (*Cancelled).*

5. (*Previously Presented*) A phase-change optical recording medium, comprising:

a transparent substrate;

a first interference film formed on the transparent substrate;

a lower interface film formed on the first interference film;

a phase-change optical recording film that permits reversible phase change between a crystalline phase and an amorphous phase upon irradiation with light formed on the lower interface film;

an upper interface film formed on the phase-change optical recording film; and

a reflection film formed on the second interference film,

the lower and upper interface films being formed of hafnium oxide, or a mixture of hafnium oxide and at least one oxide selected from the group consisting of cerium oxide, titanium oxide and zirconium oxide.

6. (*Original*) The phase-change optical recording medium according to claim 1, wherein the phase-change optical recording film is represented by the general formula:

$Ge_xSb_yTe_z$,

where x+y+z = 100, and a composition thereof falls within a range defined by x = 55 and z = 45; x = 45 and z = 55; x = 20, y = 20 and z = 60; and x = 20, y = 28 and z = 52 in the GeSbTe ternary phase diagram.

7. (*Original*) The phase-change optical recording medium according to claim 6, wherein the phase-change optical recording film is represented by the general formula:

$Ge_xSb_yTe_z$,

where x+y+z = 100, and a composition thereof falls within a range defined by x = 55 and z = 45; x = 45 and z = 55; x = 25, y = 16 and z = 59; and x = 25, y = 24 and z = 51 in the GeSbTe ternary phase diagram.

8. (*Previously Presented*) The phase-change optical recording medium according to claim 6, wherein the phase-change optical recording film is represented by the general formula in which at least one of Bi and Sn is partly substituted for a constituent element of the phase-change optical recording film:

$(Ge_{(1-w)}Sn_w)_x(Sb_{(1-v)}Bi_v)_yTe_z$,

where x+y+z = 100, $0 \leqq w < 0.5$, and $0 \leqq v < 0.7$.

9. (*Original*) A phase-change optical recording medium, comprising:

a semi-transparent, first information layer comprising a phase-change optical recording film, an interface film comprising at least one oxide selected from the group consisting of

hafnium oxide and cerium oxide and formed in contact with at least one surface of the phase-change optical recording film, a semi-transparent reflection film, and a heat sink film;

a second information layer; and

a resin layer formed between the first information layer and the second information layer,

in which heat conductivity of the heat sink film is at least 0.7 times as high as that of the interface film and not higher than 100 W/mK.

10. (*Original*) The phase-change optical recording medium according to claim 9, wherein a difference between a refractive index of the heat sink film and that of the resin layer is 0.5 or less.

11. (*Original*) The phase-change optical recording medium according to claim 9, wherein the interface film is formed of hafnium oxide, and the heat sink film is formed of aluminum oxide.

12. (*Original*) The phase-change optical recording medium according to claim 9, wherein the interface film comprises a lower interface film in contact with a lower surface of the phase-change optical recording film and an upper interface film in contact with an upper surface of the phase-change optical recording film.

13. (*Original*) The phase-change optical recording medium according to claim 12, further comprising a first interference film formed on a transparent substrate; and a second interference film, wherein the lower interface film is formed on the first interference film and the second interference film is formed on the upper interface film.

14. (*Original*) The phase-change optical recording medium according to claim 9, wherein the interface film comprises an upper interface film in contact with an upper surface of the phase-change optical recording film.

15. (*Original*) The phase-change optical recording medium according to claim 14, further comprising a first interference film formed on a transparent substrate; and a second interference film, wherein the phase-change optical recording film is formed on the first interference film and the second interference film is formed on the upper interface film.

16. (*Original*) The phase-change optical recording medium according to claim 14, further comprising a first interference film formed on a transparent substrate, wherein the phase-change optical recording film is formed on the first interference film and the semi-transparent reflection film is formed on the upper interface film.

17. (*Original*) The phase-change optical recording medium according to claim 9, wherein the second information layer has a structure in which a reflection film, a second interference film, a phase-change optical recording film, and a first interference film are formed on a second transparent substrate.

18. (*Original*) The phase-change optical recording medium according to claim 9, wherein the phase-change optical recording film is represented by the general formula:

$Ge_xSb_yTe_z$,

where x+y+z = 100, and a composition thereof falls within a range defined by x = 55 and z = 45; x = 45 and z = 55; x = 20, y = 20 and z = 60; and x = 20, y = 28 and z = 52 in the GeSbTe ternary phase diagram.

19. (*Original*) The phase-change optical recording medium according to claim 18, wherein the phase-change optical recording film is represented by the general formula:

$Ge_xSb_yTe_z$,

where x+y+z = 100, and a composition thereof falls within a range defined by x = 55 and z = 45; x = 45 and z = 55; x = 25, y = 16 and z = 59; and x = 25, y = 24 and z = 51 in the GeSbTe ternary phase diagram.

20. (*Previously Presented*) The phase-change optical recording medium according to claim 18, wherein the phase-change optical recording film is represented by the general formula in which at least one of Bi and Sn is partly substituted for a constituent element of the phase-change optical recording film:

$$(Ge_{(1-w)}Sn_w)_x(Sb_{(1-v)}Bi_v)_yTe_z,$$

where $x+y+z = 100$, $0 \leqq w < 0.5$, and $0 \leqq v < 0.7$.

21. (*Original*) The phase-change optical recording medium according to claim 9, wherein the interface film further comprises 50 mol% or less of at least one component selected from the group consisting of AlN, Al_2O_3, SiO_2, SiO, Si-O-N, Si-N, Al-O-N, Si-C, TiO_2, Ta-N, Ta_2O_5, Ta-O-N, Zn-O, ZnS, ZrO_2, Zr-O-N, Zr-N, Cr-O, Mo-O, W-O, V-O, Nb-O, Ta-O, In-O, Cu-O, Sn-O and In-Sn-O.